IN THE CLAIMS

The following claim listing replaces all prior claim listings:

1.   (Currently Amended) A signal-processing apparatus comprising:

a candidate-detecting ~~means~~unit ~~for receiving~~which receives an input signal part ~~from a input signal including at least a first signal part and remaining signal parts~~ in time-divided fashion, and ~~for detecting~~ identifies characteristic patterns in a portion of the input signal part indicating the probability that the input signal part is a candidate part, ~~from the input signal, a candidate part of the first signal part in accordance with characteristic patterns of the input signal at prescribed time intervals, the candidate part being a portion of the input signal~~;

a characteristic-extracting ~~means~~unit ~~for extracting~~which extracts characteristic ~~patterns~~data from the input signal part which ~~indicat~~eing the probability ~~of~~that the ~~first~~input signal part ~~from~~is the candidate part ~~detected by the candidate-detecting means or from signal parts preceding and following the candidate part~~; and

a detecting ~~means~~unit ~~for detecting~~which detects whether the ~~first~~input signal part is the candidate part ~~in accordance with~~based on the characteristic data extracted by the characteristic-extracting unit ~~means~~[[,]].

~~wherein~~

~~the candidate-detecting means detects, from the input signal, the candidate part prior to the candidate-extracting means extracting characteristic data from the candidate part~~

2.   (Cancelled).

3.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the detecting ~~means~~unit includes a determining ~~means~~unit ~~for determining~~which determines, from the extracted characteristic data, ~~that the~~if the ~~candidate part of the first~~input signal part is identical to ~~the first~~a previously designated input signal part ~~which has been designated~~.

4.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the apparatus further comprises an amplitude-detecting ~~means~~unit ~~for detecting~~ which detects an amplitude of the input signal, and

~~wherein the candidate-detecting means detects a pattern that the amplitude of the input signal is~~ detected amplitudes of the input signal smaller than a predetermined value at a predetermined interval are extracted by the character-extracting unit as a characteristic pattern indicating the probability that the input signal part is a candidate part ~~smaller than a predetermined value at a predetermined time interval as one of the characteristic patterns~~.

5.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the candidate detecting unit~~apparatus~~ further comprises a change-detecting ~~means~~unit ~~for detecting~~ which detects a change ~~of~~in the input signal, and

~~wherein the candidate-detecting means detects a pattern that the~~ detected changes ~~of~~in the input signal greater than a predetermined value at predetermined time interval are extracted by the character-extracting unit as characteristic pattern indicating the probability that the input signal part is the candidate part if its value ~~is greater than a predetermined value at predetermined time intervals as one of the characteristic patterns~~.

6.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~apparatus~~ candidate detecting unit further comprises a uniform-component detecting ~~means~~unit ~~for detecting~~which detects a unit period in which a prescribed component of the input signal falls within a prescribed range, and

~~wherein the candidate-detecting means detects a pattern that~~ the prescribed components of the input signal for the unit period at predetermined time intervals ~~is uniform as one of the~~ are extracted by the character-extracting unit as a characteristic pattern[[s]] indicating the probability that the input signal part is the candidate part.

7.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting~~detecting ~~means~~unit includes an amplitude-detecting ~~means~~unit ~~for detecting~~which detects an amplitude of the input signal, and

the character-extracting unit extracts the amplitude detected by the amplitude-detecting unit ~~of the signal parts preceding and/or following the candidate~~ as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

8.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting~~detecting ~~means~~unit includes an amplitude-detecting ~~means~~unit ~~for detecting~~which detects an amplitude of the input signal, and

the character-extracting unit extracts the length of the input signal part[[s]], as characteristic data indicating the probability that the input signal part is the candidate part, ~~that~~

where the amplitudes of another~~the~~ signal part[[s]] preceding and/or following the ~~candidate~~ input signal part are smaller than a predetermined threshold ~~as characteristic data indicating~~~~probability of the first signal part~~.

     9.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting~~detecting ~~means~~unit includes a correlation-detecting ~~means~~unit ~~for detecting~~which detects the correlation ~~of~~between a left and a right audio portion of the input signal part, and

the characteristic-extracting unit extracts the ~~mutual correlation~~a correlation coefficient ~~from~~of the ~~candidate part~~input signal part ~~of the first signal part~~as characteristics data indicating probability ~~of~~that the ~~first~~input signal part is the candidate part.

     10.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting means~~detecting unit includes an~~ an ~~amplitude-detecting ~~means~~unit ~~for detecting~~which detects an amplitude of the input signal part, and

the characteristic-extracting unit extracts a mean of the amplitude in the ~~candidate part of the first~~input signal part as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

     11.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting means~~detection unit includes a change-detecting ~~means~~unit ~~for detecting~~which detects a change ~~of~~in the input signal part, and

the characteristic-extracting unit extracts the number of times ~~or frequency of changing~~

the input signal part sharply changes ~~in the candidate part~~ as characteristic data indicating the

probability ~~of the~~that the ~~first~~input signal part is the candidate part.

    12.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein:

the ~~characteristic-extracting means~~detecting unit includes a uniform-component

detecting ~~means~~unit ~~for detecting~~which detects a unit period ~~for~~during which a prescribed

component of the input signal part is uniform, and

the characteristic-extracting unit extracts the number of times ~~or frequency at which~~the

prescribed component of the input signal part~~of the input signal~~ becomes uniform ~~in the~~

~~candidate part~~ as characteristic[[s]] data indicating the probability ~~of the~~that the ~~first~~input signal

part is the candidate part.

    13.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein:

the ~~characteristic-extracting means~~detecting unit includes a mode-detecting ~~means~~unit ~~for~~

~~detecting~~which detects a mode of the ~~input signal~~input signal part ~~that can have a plurality of~~

~~modes~~, and

the characteristic-extracting unit extracts the mode of the ~~candidate~~input signal part as

characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

    14.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein:

the characteristic-extracting ~~means~~ unit extracts the existence of the ~~first signal~~candidate

part in another signal that precedes or follows the ~~candidate~~ input signal part as characteristic

data indicating the probability that~~of~~ the ~~first~~input signal part is the candidate part.

15.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein:

the ~~characteristic-extracting means~~detecting unit includes a spectrum-detecting

~~means~~unit ~~for detecting~~which detects a spectrum of the input signal part, and

the characteristic-extracting unit extracts a change ~~of~~in the spectrum before or after the

~~candidate part~~ input signal part as characteristic data indicating the probability ~~of~~that the

~~first~~input signal part is the candidate part.

16.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein

the characteristic-extracting means extracts channel information of the input signal part

~~selected a channel from a plurality of channels as characteristic data~~ indicating the probability ~~of~~

that the first signal part is the candidate part.

17.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein:

the characteristic-extracting ~~means~~unit extracts an area code ~~of~~ from the ~~input signal~~input

signal part ~~that can have any one of different area codes~~ as characteristic data indicating the

probability ~~of~~that the ~~first~~input signal part is the candidate part.

18.   (Currently Amended) The signal-processing apparatus according to claim 1,

wherein:

the characteristic-extracting ~~means~~unit includes a signal-identifying ~~means~~unit ~~for identifying~~which identifies a source of the ~~input signal~~input signal part, and

the characteristic extracting unit extracts a ~~the~~type of the source of the ~~candidate part~~input signal part as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

19.   (Currently Amended The signal-processing apparatus according to claim 1, wherein:

the apparatus ~~further~~includes a timer ~~for~~which measur~~ing~~es time, and

the characteristic-extracting ~~means~~unit extracts the time at which the ~~candidate part~~input signal part is input as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

20.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting means~~detecting unit includes a genre-identifying ~~means~~unit ~~for identifying~~which identifies a genre of the input signal, and

the characteristic-extracting unit extracts the genre[[s]] ~~from~~of the signal parts preceding and following the ~~candidate part~~input signal part as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

21.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the ~~characteristic-extracting means~~detecting unit includes a timer for measuring time and a genre-identifying ~~means~~unit for identifying a genre of the ~~input signal~~input signal part, and

the characteristic-extracting unit extracts the genres from other signal parts preceding and following the input signal part and the time that has lapsed from the time of inputting the input signal part, as characteristic data indicating the probability ~~of~~ that the ~~first~~input signal part is the candidate part.~~;~~

~~the genres of the signal parts preceding and following the candidate part and the time that has lapsed from the time of inputting the candidate part.~~

22.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the characteristic-extracting ~~means~~unit extracts~~, as characteristic data indicating probability of the first signal part~~, the number of times ~~indicating that~~ the amplitude of the input signal is smaller than a threshold value or, the length of the input signal or the dispersion of amplitude of the input signal as characteristic data indicating probability of the input signal part is the candidate part.

23-24. (Cancelled).

25.   (Currently Amended) The signal-processing apparatus according to claim 1, further comprising ~~means~~unit for recording and/or reproducing the input signal.

26.   (Currently Amended) The signal-processing apparatus according to claim 1, further comprising ~~means~~unit for editing the input signal.

27.   (Currently Amended) The signal-processing apparatus according to claim 1, further comprising means for skipping the ~~first~~input signal part.

28.   (Currently Amended) The signal-processing apparatus according to claim 1, further comprising ~~means~~unit for extracting only the ~~first~~input signal part.

29.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein:

the input signal consists of an audio signal and/or a video signal, and the ~~first~~ input signal part is a commercial-_message part.

30.   (Currently Amended) A signal-processing method comprising:

receiving an ~~input signal including at least a first~~ input signal part and ~~remaining~~ other signal parts from a input signal in time-divided fashion[[,]]; and ~~for~~

detecting from the input signal, a candidate part ~~of~~ from the ~~first~~ input signal part in accordance with characteristic patterns of the input signal part ~~at prescribed time intervals, the candidate part being a portion of the input signal~~;

extracting characteristic ~~data~~ patterns from the input signal part which ~~indicating~~ indicate the probability ~~of~~ that the ~~first~~ input signal part ~~from the detected~~ is the candidate part ~~or from signal parts preceding and following the detected candidate part~~; and

detecting the ~~first signal~~ candidate part in accordance with the extracted characteristic data[[,]].

~~wherein,~~

~~the candidate part is detected from the input signal prior to extracting characteristic data from the candidate part~~

31.   (Cancelled).

32.   (Currently Amended) The signal-processing method according to claim 30, wherein

~~from~~ the characteristic data ~~it is determined~~ indicates that the signal in the candidate part is identical to the ~~first~~input signal part which has been designated.

33.   (Currently Amended) The signal-processing method according to claim 30, wherein:

~~a pattern that the~~an amplitude pattern of the input signal ~~is~~ smaller than a predetermined value at a predetermined time interval is detected as a~~one of the~~ characteristic pattern[[s]].

34.   (Currently Amended) The signal-processing method according to claim 30, wherein:

~~a pattern that the~~a change of the input signal ~~is~~ greater than a predetermined value at predetermined time intervals is detected as one of the characteristic pattern[[s]].

35.   (Currently Amended) The signal-processing method according to claim 30, wherein:

~~a pattern that the~~a prescribed component of the input signal ~~for the unit period at predetermined time intervals~~ which falls within a prescribed range during a unit period and at a predetermined time interval is detected as one of the characteristic patterns.

36.   (Currently Amended) The signal-processing method according to claim 30, wherein

the amplitude of the signal parts preceding and/or following the ~~candidate~~input signal part are extracted as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

37.   (Currently Amended) The signal-processing method according to claim 30, wherein

the ~~length of~~ signal parts ~~that~~ and the amplitudes of the signal parts preceding and/or

following the ~~candidate~~ input signal part which are smaller than a predetermined threshold ~~is~~are

extracted as characteristic data indicating the probability ~~of~~that the ~~first~~input signal part is the

candidate part.

    38.   (Currently Amended) The signal-processing method according to claim 30,

wherein

the correlation of a left and right audio portion of the~~that the input~~ input signal part ~~has in~~

~~the candidate part~~ is extracted as characteristic data indicating the probability ~~of~~that the ~~first~~

~~signal~~candidate part is commercial message.

    39.   (Currently Amended) The signal-processing method according to claim 30,

wherein

a mean amplitude in the ~~candidate part~~input signal part is extracted as characteristic data

indicating the probability ~~of~~that the ~~first~~input signal part is the candidate part.

    40.   (Currently Amended) The signal-processing method according to claim 30,

wherein

the number of times ~~or frequency of changing~~ the input signal sharply changes in the

~~candidate part~~input signal part is extracted as characteristic data indicating the probability ~~of~~that

the ~~first~~input signal part is the candidate part.

    41.   (Currently Amended) The signal-processing method according to claim 30,

wherein

the number of times ~~or frequency at~~ which the prescribed component of the input signal

becomes uniform in the ~~candidate~~ input signal part is extracted as characteristic data indicating

the probability ~~of~~that the ~~first~~input signal part is the candidate part.

42.   (Currently Amended) The signal-processing method according to claim 30,

wherein

a mode of the input signal ~~that can have a plurality of modes~~ is detected, and the mode of

the ~~candidate~~ input signal part is extracted as characteristic data indicating the probability ~~of~~that

the ~~first~~input signal part is the candidate part.

43.   (Currently Amended) The signal-processing method according to claim 30,

wherein

the existence of the ~~first candidate signal~~ part in a signal that precedes or follows the

~~candidate~~ input signal part is extracted as characteristic data indicating the probability ~~of~~that the

~~first~~input signal part is the candidate part.

44.   (Currently Amended) The signal-processing method according to claim 30,

wherein

a spectrum of the input signal is detected, and a change ~~of~~in the spectrum before or after

the ~~candidate~~ input signal part is extracted and used as characteristic data indicating the

probability that~~of~~ the ~~first~~input signal part is candidate the candidate part.

45.   (Currently Amended) The signal-processing method according to claim 30,

wherein

channel information of the input signal ~~part selected a channel from a plurality of channels~~ is extracted as characteristic data indicating <u>the</u> probability ~~of~~<u>that</u> the first signal part<u> is the candidate part</u>.

46. (Currently Amended) The signal-processing method according to claim 30, wherein

an area code of the ~~input~~ <u>input</u> signal part ~~that can have any one of different area codes~~ is extracted as characteristic data indicating <u>the </u>probability <u>that </u>~~of~~the ~~first~~<u>input</u> signal part<u> is the candidate the candidate part</u>.

47. (Currently Amended) The signal-processing method according to claim 30, wherein

~~a type of~~the source of the ~~candidate~~ <u>input</u> signal part is extracted as characteristic data indicating <u>the</u> probability ~~of~~<u>that</u> the ~~first~~<u>input</u> signal part<u> is the candidate part</u>.

48. (Currently Amended) The signal-processing method according to claim 30, wherein

the time at which the ~~candidate~~ <u>input</u> signal part is input<u>ted</u> is extracted as characteristic data indicating <u>the</u> probability ~~of~~<u>that</u> the ~~first~~<u>input</u> signal part<u> is the candidate part</u>.

49. (Currently Amended) The signal-processing method according to claim 30, wherein

the genres of the signal parts preceding and following the ~~candidate~~ <u>input signal</u> part ~~is~~ <u>are</u> extracted as characteristic data indicating <u>the</u> probability ~~of~~<u>that</u> the ~~first~~<u>input</u> signal part<u> is the candidate part</u>.

50.   (Currently Amended) The signal-processing method according to claim 30, wherein

the genre of the signal parts preceding and following the ~~candidates~~ input signal part and the time that has lapsed ~~from~~ since the ~~the time of~~ inputting of the ~~candidate~~ input signal part are extracted as characteristic data indicating the probability ~~of~~ that the ~~first~~ input signal part is the candidate part. ~~identifying a genre of the input signal.~~

51.   (Currently Amended) The signal-processing method according to claim 30, wherein

the number of times ~~indicating that~~ the amplitude of the input signal is smaller than a threshold value, the length of the input signal or the dispersion of amplitude of the input signal are extracted as characteristic data indicating the probability that ~~of~~ the ~~first~~ input signal ~~part~~ is the candidate part.

52-54. (Cancelled).

55.   (Currently Amended) The signal-processing apparatus according to claim 1, wherein

the detecting ~~means~~ unit includes a characteristic-evaluating ~~means~~ unit for evaluating the possibility that the ~~candidate~~ input signal part is the ~~first signal~~ candidate part on the basis of the characteristic data, and

a determining ~~means~~ unit for determining the ~~first signal~~ candidate part from the result of the evaluation performed by the characteristic-evaluating ~~means~~ unit.

56.   (Currently Amended) The signal-processing apparatus according to claim 55, wherein

the characteristic-evaluating ~~means~~unit evaluates the possibility that the ~~candidate~~ ~~part~~input signal part is the ~~first signal~~candidate part, on the basis of characteristic data derived from multiplying weighting values to the characteristic data and adding the weighted characteristic data.

57.   (Currently Amended) The signal-processing apparatus according to claim 55, wherein

the characteristic-evaluating ~~means~~unit uses a multi-layer perceptron to determine the possibility that ~~the candidate~~input signal part ~~of~~is the ~~first signal~~candidate part.

58.   (Currently Amended) The signal-processing method according to claim 30, wherein

the possibility that the ~~candidate~~ input signal part is the ~~first signal~~candidate part is evaluated on the basis of the characteristic data, in order to detect the ~~first signal~~candidate part, and the ~~first signal~~candidate part is determined from the result of evaluating the possibility.

59.   (Currently Amended) The signal-processing method according to claim 58, wherein

the possibility that the ~~candidate~~ input signal part is the ~~first signal~~candidate part is evaluated on the basis of characteristic data derived from multiplying weighing values to the characteristic data and adding the weighted characteristic data.

60.   (Currently Amended) The signal-processing method according to claim 58, wherein a multi-layer perceptron is used to determine the possibility that the candidate part of the ~~first~~input signal part.